Amendments to Claims:

1. (Currently Amended) An actuator comprising:

a frame having a longitudinal axis;

a bobbin disposed in said frame, said bobbin having a central cavity;

a coil wound on said bobbin for producing a magnetic field in at least said central cavity in response to a control signal applied thereto; and

a plunger assembly movably disposed in said central cavity, said plunger assembly having a plunger portion secured to a rod portion, said plunger portion comprising magnetic material, wherein said rod portion comprises plastic material configured to allow a predetermined amount of elastic deformation, said rod portion being removably secured to said plunger portion by way of a snap fit onto a forward end of said plunger portion.

2. (Canceled)

3. (Currently Amended) The actuator of ~~claim 2~~ claim 1 wherein said rod portion has a first end having a funnel shape, said forward end of said plunger portion having a conical shape corresponding to said funnel shape.

4. (Currently Amended) The actuator of ~~claim 2~~claim 1 wherein said rod portion has a first through-bore, said plunger portion having a second through-bore, said first through-bore being in communication with said second through-bore when said rod portion is secured to said plunger portion.

5. (Original) The actuator of claim 4 wherein said first and second through-bores are configured for fluid flow.

6. (Original) The actuator of claim 5 wherein said first and second through-bores are configured for fluid damping and compensation of hydraulic forces in said actuator.

7. (Currently Amended) The actuator of ~~claim 2~~ claim 1 wherein said cavity includes a closed end, said bobbin further including a guide axially extending from said closed

end into said cavity, said guide being configured to align said plunger assembly within said cavity.

8. (Original) The actuator of claim 7 wherein said plunger portion includes a back end axially opposite said forward end, said second through-bore at said back end being configured to receive said guide therein.

9. (Original) The actuator of claim 7 wherein said guide includes an axially extending post, said post having a pair of guiding discs extending radially outwardly from said post, one of said pair of discs being axially offset from the other one of said pair of discs, each of said pair of discs having a diameter corresponding to a diameter of said second through-bore of said plunger portion at said back end.

10. (Original) The actuator of claim 7 wherein said guide further includes a stop feature configured to minimize contact of said back end of said plunger portion with said closed end of said cavity.

11. (Original) The actuator of claim 1 wherein said bobbin includes an annular secondary plate formed of magnetic material insert molded therein, said bobbin being configured to provide an annular isolation layer between an inner diameter of said secondary plate and said plunger portion in said cavity.

12. (Original) An actuator for controlling a valve, said actuator comprising:

a frame having a longitudinal axis;

a bobbin disposed in said frame, said bobbin having a central cavity, said bobbin further including an outer winding surface;

a coil wound on said winding surface of said bobbin for producing a magnetic field in at least said central cavity in response to a control signal applied thereto; and

a plunger assembly movably disposed in said central cavity, said plunger assembly having a plunger portion secured to a rod portion, said plunger portion comprising magnetic material, said rod portion comprising plastic material configured to allow a

predetermined amount of elastic deformation, said rod portion being removably secured to said plunger portion by way of a snap fit onto a forward end of said plunger portion,

said rod portion having a first through-bore, said plunger portion having a second through-bore, said first through-bore being in communication with said second through-bore when said rod portion is secured to said plunger portion, said first and second through-bores being configured for fluid flow,

said cavity including a closed end, said bobbin further including a guide axially extending from said closed end into said cavity, said guide being configured to align said plunger assembly within said cavity, said plunger portion including a back end axially opposite said forward end, said second through-bore at said back end being configured to receive said guide therein, said guide including an axially extending post, said post having a pair of guiding discs extending radially outwardly from said post, one of said pair of discs being axially offset from the other one of said pair of discs, each of said pair of discs having a disc diameter corresponding to a plunger-bore diameter of said second through-bore of said plunger portion at said back end.

13. (Original) The actuator of claim 12 wherein said first through-bore being in registry with said second through-bore.

14. The actuator of claim 13 wherein said rod portion has a first end having a funnel shape, said forward end of said plunger portion having a conical shape corresponding to said funnel shape.

15. (Original) The actuator of claim 14 wherein said first and second through-bores are configured for fluid damping and compensation of hydraulic forces in said actuator.

16. (Original) The actuator of claim 15 wherein said guide further includes a stop feature configured to minimize contact of said back end of said plunger portion with said closed end of said cavity.

17. (Original) The actuator of claim 16 wherein said bobbin includes an annular secondary plate formed of magnetic material insert molded therein, said bobbin being

configured to provide an annular isolation layer between an inner diameter of said secondary plate and said plunger portion in said cavity.